What is claimed is:

1. A micromechanical component comprising:

a substrate (1);

a micromechanical functional plane (100) provided on the substrate;

a covering plane (200) provided on the micromechanical function plane (100); and

a printed circuit trace plane (300) provided on the covering plane (200);

wherein

the covering plane (200) features a monocrystalline region (14) which is epitaxially grown on an underlying monocrystalline region (7; 24); and

the covering plane (200) features a preferably polycrystalline region (15) which is epitaxially grown on an underlying polycrystalline starting layer (13) at the same time.

2. The micromechanical component as recited in Claim 1, wherein the micromechanical functional plane (100) features a monocrystalline region (7) which is epitaxially grown on an underlying monocrystalline region (1), as well as a polycrystalline region (8) which is epitaxially grown on an underlying polycrystalline starting layer (6) at the same time.

3. The micromechanical component as recited in Claim 1,

wherein the micromechanical functional plane (100) features an SOI-type monocrystalline region (24) formed above an insulator layer (25) with the substrate (1).

4. The micromechanical component as recited in Claim 1, 2 or 3,
wherein the monocrystalline region (14) of the covering plane (200) includes one or a plurality of integrated circuit elements (23) of an evaluation circuit or wiring elements.

5. The micromechanical component as recited in one of the preceding Claims,
wherein the polycrystalline region (8) of the micromechanical functional plane (100) features a movable sensor structure (10).

6. The micromechanical component Claim 5,
wherein the micromechanical functional plane (100) features a buried polysilicon layer (3) underneath the movable sensor structure (10).

7. The micromechanical component as recited in one of the preceding Claims,
wherein one or a plurality of flip-chip connection elements, preferably gold bumps, are provided in the printed circuit trace plane (300).

8. The micromechanical component as recited in one of the preceding Claims,
wherein it is possible to manufacture it by silicon-surface micromachining.

9. A method for manufacturing a micromechanical component comprising the steps of:

providing a substrate (1);

providing a micromechanical functional plane (100) on the substrate (1);

providing a covering plane (200) on the micromechanical functional plane (100);

providing a polysilicon starting layer (13) region-wise on the micromechanical functional plane (100), and leaving open region-wise a monocrystalline region (7, 24) of the micromechanical functional plane (100);

epitaxially depositing a monocrystalline region (14) on the monocrystalline region (7, 24) left open and epitaxially depositing a polycrystalline region (15) on the polycrystalline starting layer (13) at the same time; and

providing a printed circuit trace plane (300) on the covering plane (200).